

Pityopus californica (Eastw.) H. Copel.
pine-foot
Ericaceae (Heath Family)

Status: State Threatened

Rank: G4G5S1

General Description: Adapted from Hitchcock et al. (1961): A perennial, nongreen, fleshy herb with brittle roots. There are no stems. The leaves are scale-like. The inflorescence, made up of racemes or solitary flowers, is $\frac{1}{4}$ to 4 in. (1 to 10 cm), cream-colored to yellowish, and emerging from the soil. The inflorescence is erect, not persistent after seed dispersal, and bracted. There are 4 to 5 free sepals, the lateral 2 are often folded, clasping the corolla, and the others lie flat against the corolla. There are 4 to 5 free, cylindric petals that are cream-colored to yellowish, the outside is more or less hairless and the inside is densely hairy. There are generally 8 stamens, with erect, horseshoe-shaped anthers that are dehiscent by 1 unified slit and are unawned. There are 8 to 10 nectary lobes among the stamen bases. The styles are less than $\frac{1}{4}$ in. (5 mm) long, the stigma is less than $\frac{1}{4}$ in. (5 mm) wide, more or less funnel-shaped, yellowish, and subtended by a ring of hairs.

Identification Tips: There is only one species of *Pityopus* in the Pacific Northwest. The closest related genus to *Pityopus* is *Pleuricospora*. These two genera can be distinguished by the nature of their flowers, anthers, and stigmas. The flowers of *Pityopus* are densely hairy inside and more or less hairless outside, its anthers are horseshoe-shaped and not elongate, its stigma is less than $\frac{1}{4}$ in. (5 mm) wide, more or less funnel-shaped, and subtended by a ring of hairs. The flowers of *Pleuricospora* are hairless inside and out, its anthers are elongate, its stigma is less than $\frac{1}{8}$ in. ($2\frac{1}{2}$ mm) wide, crown-like, and not subtended by hairs.

Phenology: Identifiable from June to July.

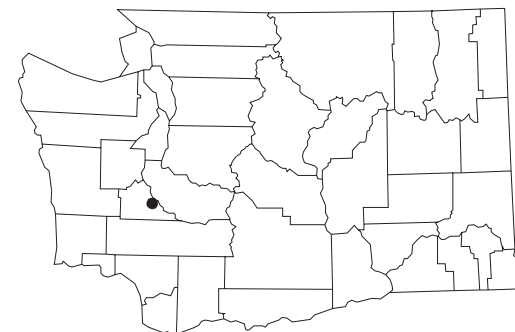
Range: This species is uncommon. It has been found in Northern California, southwestern Oregon, and is disjunct to the Puget Trough. In Washington, *Pityopus californica* has been seen in Thurston County.

Pityopus californica
pine-foot



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Known distribution of
Pityopus californicus
in Washington



- Current (1980+)
- Historic (older than 1980)

Pityopus californicus

pine-foot



Photo by Robert E. Preston



Photo by Gary Monroe

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Habitat: *Pityopus californica* grows in mixed coniferous forests. In Washington, this species is known from a site with a significant moss groundcover at an elevation of 480 ft (146 m). Associated species include Douglas fir (*Pseudotsuga menziesii*), twinflower (*Linnaea borealis*), prince's pine (*Chimaphila menziesii*), salal (*Gaultheria shallon*), Oregon-grape (*Berberis* sp.), pyrola (*Pyrola* sp.), bracken fern (*Pteridium aquilinum*) and eurhynchium moss (*Eurhynchium oreganum*).

Ecology: This species grows in second-growth forests at low elevations.

State Status Comments: Known from one recent occurrence within the Fort Lewis Military Reserve in Thurston County.

Inventory Needs: Mixed coniferous forests in Thurston County should be systematically surveyed for additional populations.

Threats and Management Concerns: Definite threats have not been identified for this species. However, the small range of this taxon in Washington and the small number of known occurrences are major concerns. Any disturbance to the immediate habitat, such as timber harvest, recreational activities, and military training exercises, may constitute a threat.

References:

- Hickman, J.C. 1993. *The Jepson Manual: Higher Plants of California*. University of California Press, Berkeley. 1400 pp.
- Hitchcock, C.L., A. Cronquist, M. Ownbey, J.W. Thompson. 1961. *Vascular Plants of the Pacific Northwest Part 3: Saxifragaceae to Ericaceae*. University of Washington Press, Seattle, WA. 614 pp.